High-Capacity Disk Drives for Business and Home

Key Features and Benefits

- High capacities—up to 6.4 gigabytes in a 5.25-inch form factor

- Faster data transfer—Fast ATA-2 PIO Mode 4 support, Multiword DMA Mode 2 support, multiple AutoRead™/ multiple AutoWrite™ and AutoTransfer™ technology

- Exceptional sequential transfer performance—large-capacity data tracks

- Enhanced performance— adaptive segmented buffer, DisCache® and WriteCache®

- Outstanding reliability— 224-bit Reed Solomon double-burst ECC on-the-fly, advanced embedded servo

- Easy installation—ultra-slim 0.75- and 1-inch-high designs, AT-Bus Cable Select™, system-controlled power modes, Defect Free Interface® firmware, and DiskWare™ downloadable firmware, S.M.A.R.T. Revision 2 support

The Market

Every year the demand for hard disk storage doubles. Glance down the software aisle of any computer store and you'll see why: "software inflation." Today's graphical operating systems, such as Windows® 95, use up to 60 megabytes of storage space. CD-ROM–based multimedia applications, educational applications, and games gobble up to 40 megabytes of disk space each. On top of that, many people store e-mail messages and downloaded images from digital cameras and the Internet.

To satisfy this rapidly growing market, Quantum created the Bigfoot™ 5.25-inch disk drive series. By combining advanced recording technologies with the increased data area of 5.25-inch disks, the Bigfoot CY drive delivers the best dollar-per-megabyte value in the industry today.

Outstanding Performance for Multimedia and Beyond

Multimedia applications benefit from greater sequential transfer performance. The large-capacity data tracks of Bigfoot CY disks deliver exceptional sequential performance, making the drive perfect for multimedia.

To enhance performance further, Bigfoot CY is designed with Quantum's proprietary technologies for minimizing host delays and increasing sequential data performance—multiple AutoRead, multiple AutoWrite, and AutoTransfer capabilities. In addition, we included a Fast ATA-2 interface that delivers local-bus AT Programmed Input/Output (PIO) Mode 4 and Multiword DMA Mode 2 data transfers of up to 16.6 megabytes

per second. We also included a 128-kilobyte buffer with Quantum's DisCache adaptive, segmented drive-to-host caching technology to enhance high-speed data transfers.

Easy Installation

Installing a Bigfoot CY drive is a snap, whether you're building a new system or upgrading an existing PC. It's the same width as a CD-ROM drive, so it fits conveniently in any standard 5.25-inch drive bay. The Bigfoot CY drive also uses the standard AT interface and cables—and supports the same master/slave configurations as 3.5-inch disk drives. That's why no matter whether you're building a new system or upgrading an existing system, installing a Bigfoot CY drive is simple and straightforward.

Reliability and Versatility

We designed the Bigfoot CY drive using as many field-proven components as possible to give consumers years of trouble-free operation. Using advanced ASIC technology, we also implemented automatic, double-burst, on-the-fly error detection and correction to ensure rock-solid reliability. The Bigfoot CY drive also supports the S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology) Revision 2 industry-standard data-protection firmware. With host computer S.M.A.R.T. support, this feature provides critical disk drive status and overall health information that lets users avoid catastrophic data loss. When you have systems equipped with reliable and versatile Bigfoot CY drives, your customers stay sold on you—and on Quantum.

Quantum™

BIGFOOT™

Quantum Bigfoot CY

	2.1	4.3	6.4
Form Factor	5.25 inch (ultra low profile)	5.25 inch (low profile)	5.25 inch (low profile)
Interface	Fast ATA-2	Fast ATA-2	Fast ATA-2
Formatted Capacity (MB[1])	2,111	4,320	6,480

Disk Drive Configuration

	2.1	4.3	6.4
Recording Surfaces	2	4	6
AT Logical			
Cylinders	4,092	8,960	13,456
Heads	16	15	15
Sectors	63	63	63

Performance Specifications

	2.1	4.3	6.4
Typical Seek Times[2] (ms)			
Average	<12	<13	<13
Track-to-Track	3		
Full Stroke	30		
Average Rotational Latency (ms)	8.3		
Rotational Speed (RPM)	3,600		
Internal Data Rate (Mb/sec)	Up to 92.6		
Data Transfer Rates (Buffer-to-Host)			
PIO Mode 4 (MB/sec)	16.6		
DMA Mode 2 (MB/sec)	16.6		
Buffer Size (KB)	128		

Reliability Specifications

Start/Stop Cycles (ambient)	20,000
Nonrecoverable Data Errors (per bits read)	<10 per 10^{15}
Warranty[3] (years)	3

Physical Specifications

	2.1	4.3	6.4
Dimensions—inches (mm)			
Width	5.75 (146.05)		
Length	8.0 (203.2)		
Height	0.75 (19.05)	1.00 (25.4)	1.00 (25.4)
Weight—pounds (kg)	2.0 (0.91)	2.4 (1.09)	2.5 (1.14)

Environmental Limits

Operating	
Temperature (°C)	5 to 55
Non-Condensing Humidity (%)	5 to 85
Shock (G, 11 ms)	10
Vibration (G, 5 to 300 Hz, peak-to-peak)	1
Altitude (ft.)	-200 to 10,000
Non-Operating	
Temperature (°C)	-40 to 75
Non-Condensing Humidity (%)	5 to 95
Shock (G, 11 ms)	70
Vibration (G, 5 to 500 Hz, peak-to-peak)	2
Altitude (ft.)	-650 to 40,000
Idle Sound (typ)	
Pressure (dBA)	34

Power Specifications

Nominal Voltage (V)	+5/+12
Voltage Margin (%)	±5/±10
Typical Power Draw (W) (Quantum Bigfoot CY 6.4)	
Standby	1.0
Idle	5.75
Operating[4]	6.5
Peak Current (mA on +5/+12 V)	460/1,800

[1] Quantum defines a megabyte (MB) as 10^6 or 1,000,000 bytes.
[2] Seek times are at nominal conditions and include settling.
[3] This warranty is standard when products are purchased directly through authorized Quantum distributors/dealers. Unless otherwise agreed, a one-year warranty is provided to all OEMs purchasing directly from Quantum. End-user warranties provided by computer manufacturers may vary.
[4] Operating is defined as 40% seeking, 30% reading, 10% writing, and 20% idle.

For More Information

For more information about Quantum's quality products, call toll-free: 1-800-624-5545 in the U.S.A. and Canada, or visit our World Wide Web site: http://www.quantum.com

Quantum™
CAPACITY FOR THE EXTRAORDINARY™